DOCUMENT RESUME

ED 074 210 VT 019 114

AUTHOR	Kobland, John
TITLE	Research Project: Practical Nursing Licensing Exam Achievement Relationship to Work Performance and Retention. Final Report.
INSTITUTION	Pennsylvania Health Council, Inc., Harrisburg.
SPONS AGENCY	Pennsylvania State Dept. of Education, Harrisburg. Bureau of Vocational, Technical, and Continuing Education.
PUB DATE	16 Jun 72
NOTE	43p.
EDRS PRICE	MF-$0.65 HC-$3.29
DESCRIPTORS	Academic Achievement; Disadvantaged Groups; Faculty Evaluation; Health Occupations Education; *Job Satisfaction; *Performance Factors; Personal Values; *Practical Nursing; Relationship; *Retention; *Socioeconomic Influences; State Licensing Boards; Work Attitudes
IDENTIFIERS	*Licensing Examinations

ABSTRACT

This project was intended to provide information which would assist in: (1) assessing the correlation of state board achievement with job satisfaction, on-the-job performance, and length of retention in the field of practical nursing, (2) determining those faculty qualifications which are necessary to produce above-average achievement on the state board examination, (3) determining the percentage of socio-economically disadvantaged practical nursing students who complete the minimum requirements for eligibility to sit for the state board examination, and (4) comparing selected personal and academic characteristics of graduate practical nurses. Data were gathered from practical nurses who graduated in the fall of 1967, 101 instructors from 14 separate practical nursing schools, and from 405 students enrolled in 13 different schools. Job satisfaction scores were fairly equally distributed among the five classes of social groups and the greatest problem of LPN's seemed to be that they felt there was a lack of recognition of their contribution. Results indicate that students taught by instructors who appear too full of their subject and are overly definite and forceful, achieve lower state board scores than would otherwise be the case. (GEB)

FILMED FROM BEST AVAILABLE COPY

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY

ED 074210

PENNSYLVANIA HEALTH COUNCIL, INC.
(CAMP HILL, PENNSYLVANIA)

FINAL REPORT

ON

RESEARCH PROJECT: PRACTICAL NURSING LICENSING EXAM ACHIEVEMENT RELATIONSHIP TO WORK PERFORMANCE AND RETENTION

SCHOOL UNIT 12-012

PROJECT NO. 191001

PREPARED FOR

BUREAU OF VOCATIONAL, TECHNICAL AND CONTINUING EDUCATION

PENNSYLVANIA DEPARTMENT OF EDUCATION

OF

THE COMMONWEALTH OF PENNSYLVANIA

June 16, 1972

JOHN KOBLAND

VT019114

CONTENTS

	Page
INTRODUCTION	
Statement of Objectives	i
SAMPLING PROCEDURES	
Objectives one and four	ii
Objective three	24
Objective two	25
ANALYSIS OF OBJECTIVES	
First Objective Results	1
Fourth Objective Results	6
Third Objective Results	24
Second Objective Results	25
LPN COMMENTS	
Selected Comments	33
Discussion of Comments	37
REFERENCES	39

IDENTIFICATION

RESEARCH PROJECT: PRACTICAL NURSING LICENSING EXAM ACHIEVEMENT RELATIONSHIP TO WORK PERFORMANCE AND RETENTION

APPROVED 2-1-71

PROJECT PERIOD - SEVENTEEN MONTHS

INTRODUCTION

It is the intent of this project to assist the Pennsylvania Department of Education in: (1) assessing the correlation of state board achievement with job satisfaction, on the job performance, and length of retention in the field of practical nursing, (2) determining those faculty qualifications which are necessary to produce above average achievement in the state board examination for graduate practical nurses, (3) determining the percentage of socio-economically disadvantaged practical nursing students who complete the minimum requirements for eligibility to sit for the state board examination as compared with the percentage of non-disadvantaged students who complete the programs, and (4) comparing selected personal and academic characteristics of graduate practical nurses who are socio-economically disadvantaged with those who are not thus disadvantaged.

A. Sampling Procedures for Objectives One and Four.

1. The first and fourth objectives of this study as stated in the introduction above were determined from a sampling of nurses who graduated in the fall of 1967 from practical nursing school.

   a. Three variables were included in the stratification technique. This procedure resulted in the formation of eight separate clusters of practical nursing schools. The three variables were: Standard Metropolitan Statistical Areas (SMSA), age of the schools, and size of the schools. Specific counties were classified either SMSA or NSMSA (Non-Standard Metropolitan Statistical Area) with data from the U. S. Census Bureau. Schools in the various counties were characterized as either SMSA or NSMSA related.

   The median age of schools that opened in or before the fall of 1966 was 141 months. This was calculated in April, 1971. Schools were therefore stratified on the basis of being either above or below the median age.

   The median number of fall 1967 graduates was 21.5. Schools were consequently determined to be either above or below the median size.

   b. Eight schools were randomly chosen from each of the resulting cells using a table of random numbers. The eight schools randomly chosen were: Reading-Muhlenberg Area Vocational Technical School, Harrisburg-Steelton-Highspire Area Vocational Technical School, Franklin County Area Vocational Technical School, Williamsport Area Vocational Technical School, Greensburg- Salem School District, Lebanon County Area Vocational Technical School, Fayette County Area Vocational Technical School, and Greater Johnstown Area Vocational-Technical School.

I. Past Activities

A. Results to the First Objective

1. As indicated above on page (ii), the sample for this first objective as stated in the Introduction was comprised of licensed practical nurses who graduated in the fall of 1967 from eight separate training programs. Job performance ratings were provided by the LPNs' immediate nursing supervisors.

2. The first objective concerns the relationship of state board achievement with three dependent variables, that of job satisfaction, on the job performance and length of retention in the field of practical nursing.

   a. Job Satisfaction verses State Board Achievement.

   Job satisfaction scores were obtained from 149 LPNs or 74.5% of the total sample (200 nurses). Degrees of satisfaction or dissatisfaction were indicated on an 18 item Likert-type scale developed by Treece (1969). Each item response was given a score of from 4 to 1, with 4 representing a response of very satisfied and 1 representing a response of very dissatisfied, while satisfied and dissatisfied responses were scored 2 and 3 respectively. The Pearson product moment coefficient of correlation was computed between the scores of the items of the scale and the NLN Examination (State Board) scores and between the total sums of the scale and state board scores. These correlations are shown in Table 1. The one correlation of statistical significance (.17) at an alpha level of .05 is between distribution of duties among RNs, LPNs, and nurse aides/orderlies and state board achievement. This r of .171 indicates that LPNs with higher state board scores are more satisfied with the distribution of duties among workers than are LPNs with lower state board scores. There is also an indication that higher state board achievers are more satisfied with an LPN's salary than are lower achievers, although the r between these items is not significant at the .05 level. The correlation of item K in Table 1 with state board achievement is unexpected, however, it may be that the LPN who performed better on the state boards is better able to cope with and adapt to the realities of the working conditions (specifically distribution of duties) as they do exist.

TABLE 1

CORRELATIONS BETWEEN NLN EXAMINATION SCORES AND

JOB SATISFACTION ITEM SCORES

Item	Work Condition	Product Moment Coefficient of Correlation
A.	Length of work week	.030
B.	Scheduling of hours	.006
C.	Salary	.138
D.	Relations with nursing administrator	.079
E.	Relations with other nursing groups on staff	.049
F.	Communications	.092
G.	Amount of supervision provided	.098
H.	Amount of work expected	.128
I.	Supplies and equipment to perform job	.069
J.	Place and equipment for use of employees during rest periods	.056
K.	Distribution of duties among RNs, LPNs, and nurse aides/orderlies	.171
L.	Cooperation among employees	.114
M.	Immediate supervisor's attitude	.114
N.	Opportunities to learn (in service education)	-.028
O.	Job security	.108
P.	Opportunities to gain experience	.025
Q.	Opportunities to assume responsibility	.066
R.	Opportunity for advancement	.033

Note: The requirement for significance is an r of .159 required for alpha = .05

The r of .134 between total job satisfaction (sums of the items) and state board scores is not significant at the .05 level, but may be an indication of a positive relationship between state board achievement and overall job satisfaction. The trend does exist showing that LPNs with higher state board scores are probably more generally satisfied with their work than are nurses showing lower state board achievement. Of the seventeen item correlations there is one negative r (-.028), that of item N (opportunities to learn, in service education) with state board achievement.

b. On-the-Job Performance verses State Board Achievement.

On the job performance ratings given to 100 LPNs by their immediate nursing supervisors on a twelve item performance scale were correlated with state board achievement. 100 nurses or 80% of a total sample of 125 were evaluated. The performance scale was an adaptation of the instrument developed by Wrigley (1969). The scale consists of twelve items, each of which can be scored from 1 to 5. The twelfth item is an overall ability measure and is considered a control variable of the scale. The only scale changes made were in the directions for its use, making it more explicit. The original directions were found to be confusing to many raters in the pre-test sample.

There were no significant correlations produced either between individual item scores and state board achievement or between total sums of the scale scores and state board achievement. The largest Pearson product moment coefficient of correlation was between item K or professional interest and achievement on the Exam as shown in Table 2. It appears that the higher state board achievers are more interested in keeping up to date with their jobs through participation in workshops, clinics or meetings and reading of journals.

Quality of work by the LPN computed a correlation of .146 while quality of work computed a correlation of -.142, which indicates that a high state board achiever might be willing to do more work than a lower achiever but that the quality of the higher achiever's work is not as satisfactory. The r of -.142 for item D is disappointing as it shows that high state board achievers are too often either unable or unwilling to perform as well on the job as might be expected. It is suggested here as below that many practical nursing skills are learned in the clinical area of training and that the degree of proficiency attained in this area is not measured adequately by the State Board Examination.

TABLE 2

CORRELATIONS BETWEEN NLN EXAMINATION SCORES AND

ON-THE-JOB PERFORMANCE SCALE SCORES

Item	Work Condition	Product Moment Coefficient of Correlation
A.	Absenteeism	-.005
B.	Dependability	.022
C.	Quantity	.146
D.	Quality	-.142
E.	Knowledgeability	.025
F.	Adeptability	.078
G.	Versetility	.001
H.	Self Improvement	.004
I.	Use of Time	-.027
J.	Amicability	-.015
K.	Professional Interest	.073
L.	Overcall Ability	.073
	Total Sums of the Scale	.037

Note: The requirement for significance is an r of .195 required for alpha = .05

The total of the scores compiled on the NLN Examination and the total of the scores compiled on the on-the-job performance scale has a correlation of .037. It would seem that for two instruments that purport to measure the same factor, the correlation is unusually low. The inference can only be that the instruments are measuring different content as well as educational objectives. The traits included in the performance scale were examined and considered valid by two juries of RN supervisors in Alabama (Wrigley, 1969), it would therefore seem unlikely that these traits would represent misleading or inadequate measurers of performance. A General Duty Nurse Study (1963) produced a concurrent validity coefficient of .92 for the Descriptive Rating Scale which Wrigley adapted. The Kuder-Richardson coefficient of reliability computed .68 with the on-the-job performance scales. The Wrigley study computed an r of -.09 between total sums of the scale and state board achievement, which, although different from this study's correlation of the same factors, is both low and non-significant. The on the job performance scale scores showed general satisfaction of employers with the LPNs. The NLN examination is apparently not measuring a large factor of nursing proficiency and this factor may be the skills learned in the clinical content of the training programs. A needed adjunct to the state board examination is a proficient evaluation method in the clinical area of training which would give more positive prediction of on the job performance.

c. Length of Retention verses State Board Achievement.

The results given here refer only to objective one, more extensive results regarding reasons for leaving specific jobs, current employment and employment plans for the future are shown below in an analysis of objective four.

The number of questionnaires from which length of retention could be calculated was 143 which represents a 71.5% return rate.

State Board achievement was correlated with the number of months the LPNs worked in practical nursing jobs from time of graduation until September of 1971. The Pearson product moment coefficient of correlation between these factors was .057, which is not significant at an alpha level of .05. There is apparently no relationship between an LPN's state board achievement and the length of time she remains in the field of practical nursing.

State board achievement was compared with the number of practical nursing jobs held by the LPNs within the four year period. An r of -.06 was computed between these factors which is not significant. No relationship appears to exist between an LPN's state board achievement and the number of practical nursing jobs held.(turnover rate).

A similar computation was made between state board achievement and the total number of jobs held by the graduates. An r of -.049 was the result, which is slightly lower than that of the previous calculation. There is no significant relationship between state board achievement and the total number of jobs held by LPNs.

B. Objective four asks to compare selected characteristics of socioeconomically disadvantaged LPNs with those who are not thus disadvantaged. It is difficult to apply the term "disadvantaged" to specific graduate practical nurses, so that comparisons were made of nurses in a hierarchy of score groups or Social Classes devised by Hollingshead (1958) whose Two Factor Index of Social Position was used to estimate the positions the LPNs occupy in the status structure of society. The socioeconomic position of an individual in this method is based upon the precise occupational role the head of the household performs in the economy and the amount of formal schooling he has received. Scale scores are applied to occupational and educational levels and each is multiplied by specific factor weights. Social classes resulting range from I to V with the range of computed scores within classes as follows

Social Class	Range of Computed Scores
I	11-17
II	18-27
III	28-43
IV	44-60
V	61-77

A score of 11 represents the highest socioeconomic position and 77 the lowest socioeconomic position possible on the scale.

The sample used to determine objective four was the same as used for objective one, that is, graduates of specific fall 1967 classes. The number of LPNs occurring in the various social classes was as follows

Social Class	Number of LPNs
I	6
II	9
III	24
IV	94
V	16

a. Grade Average in High School

The nurses were asked to indicate their grade average in high school (A, B, C, or D). The grades within social classes are shown in the chart below. The nurses present socioeconomic status does not appear to significantly reflect itself in high school grades.

Grade Average	Social Class I No.	I Percent	II No.	II Percent	III No.	III Percent	IV No.	IV Percent	V No.	V Percent
A							4	4.54	1	7.7
B	2	33.3	5	55.5	13	56.5	47	53.5	1	53.9
C	4	66.6	4	44.5	10	43.5	35	39.8	5	38.5
D							2	22.7		

b. The nurses were asked if they completed high school. Results are shown in the chart below.

High School Status	I No.	I Percent	II No.	II Percent	III No.	III Percent	IV No.	IV Percent	V No.	V Percent
Complete High School	6	100	9	100	23	96	87	92.5	11	68.7
Did not Complete							4	4.26	2	12.5
GED					1	4	3	3.19	3	18.7

Nurses now in a lower socioeconomic position had a lower high school completion potential.

c. Present Age.

Social Class I	Mean - 23.83 years Standard Deviation= 1.06
Class II	Mean = 23.88 years Standard Deviation= 1.28
Class III	Mean = 25.6 years Standard Deviation= 5.26
Class IV	Mean = 27.7 years Standard Deviation= 9.17
Class V	Mean = 28.5 years Standard Deviation= 8.4

There is a small rise in the mean age from Class I to Class V and an increase in the standard deviations except from Class IV to Class V. LPN's in the lowest social class (V) average about 5 years older than nurses in the highest social class (I).

d. Marital Status when first enrolled in the practical nurse training program.

Class I	100.0% single
Class II	100.0% single
Class III	16.7% married 79.1% single 4.2 divorced or separated
Class IV	19.2 married 76.5% single 4.3 divorced or separated
Class V	18.7% married 81.3% single

e. Current Marital Status

Class I	100.0% married
Class II	66.6% married 33.3% single
Class III	83.5% married 12.5% single 4.0% divorced or separated
Class IV	68.1% married 22.4% single 2.1% widowed 7.4% divorced or separated
Class V	50.0% married 43.8% single 6.2% divorced or separated

It is interesting to note that Class I and II contained no separated or divorced persons and that the number of single people steadily increased from Class III to Class V.

f. At what age do persons first think of becoming a nurse? Responses indicate.

Social Class I	Mean = 14.0 years Standard Deviation = 3.69
Social Class II	Mean = 14.22 years Standard Deviation = 3.08
Class III	Mean = 14.29 years Standard Deviation = 4.44
Class IV	Mean = 14.9 years Standard Deviation = 7.57
Class V	Mean = 18.6 years Standard Deviation = 9.85

Most of the subjects thought of nursing at about the time they entered junior high school, except in Class V where the mean age was 18.6 with a standard deviation of 9.85.

g. At what age do people definitely decide to study practical nursing? Responses indicate:

Social Class I	Mean = 18.5 years Standard Deviation = 1.25
Class II	Mean = 17.88 years Standard Deviation = 1.09
Class III	Mezn = 19.21 years Standard Deviation = 4.23
Class IV	Mean = 21.9 years Standard Deviation = 9.21
Class V	Mean = 22.68 years Standard Deviation = 8.54

Most LPNs definitely decide upon practical nursing as a career choice shortly after completion of high school. There is greater variance however in the lower two groups (IV and V).

h. Career goals at various points in time.

The nine goals listed below correspond to those numbers on the top line of Table 3.

1. Nursing (RN or PN)
2. Related health field occupation
3. Non-nursing occupation (Not health related)
4. Undecided
5. Any job
6. None
7. Don't recall
8. Homemaker
9. Other, please specify

TABLE 3

CAREER GOALS AT VARIOUS TIMES
WITHIN SOCIAL CLASSES

	Social Class	Goals 1	2	3	4	5	6	7	8	9
During 10th grade in High School	I	66.6	16.7		16.7					
	II	55.0	11.1	11.1	22.2					
	III	62.5	4.16	25	8.3					
	IV	66	2.2	8.8	15.8			1.1	2.2	4.4
	V	50	6.2		3.12	6.2			6.2	
Upon Graduation From High School	I	100								
	II	89	11							
	III	62.5		20.8		8.33			4.16	4.16
	IV	79.7		9.0	1.12	1.12			6.75	2.25
	V	56.8		20	6.7				6.7	
Upon graduation from practical nursing school	I	100								
	II	89							11.1	
	III	100								
	IV	87.2	7.45		1.06	1.06			2.13	1.06
	V	100								
At the present time	I	33.3	16.6						50	
	II									
	III	75	4.16						20.8	
	IV	71.3	4.2	1.06	2.1	1.06			20	
	V	87.5		6.25					6.25	

The numbers within the table represent percentages of those in certain social classes choosing specific goals.

The 10th grade represents a greater period of indecision than the later points in time do. However, at least 50% of all nurses sampled said that nursing was their career goal in the 10th grade. Class V appears to contain the greatest number of subjects who were undecided as to a career choice in the 10th grade.

When they graduated from high school, a majority of the subjects intended to enter nursing. 20.8% of the Class III persons, however, intended to enter a non-health related occupation and 20% of Class V were undecided.

Upon graduation from practical nursing school a large majority of all classes wanted to enter practical nursing. 11% of Class II wished to be homemakers and 7.4% of Class IV wished to enter non-health related occupations.

At the present time, 50% of Class I have homemaker as a career goal, this being understandable due to their socioeconomic position. There is almost a steady increase in percentages from Class I to Class V of LPNs now wanting to work in practical nursing.

i. The nurses were asked to indicate their three most important reasons for entering practical nursing. Results are shown in Table 4.

The most influential reasons for entering practical nursing appear to be general interest in that type of work, interest in and liking for people and wanting to care for sick people. Job security and worthy use of one's life are two other prevalent causes. The table reflects a bleakness regarding suitability to academic background, suggesting the relative lack and need of health related courses in high school curriculums.

There does not appear to be a large variance between social classes regarding the three most influential reasons for entering this profession. It may be that the lower socio-economic strata were more intensely interested in actually caring for sick people and a worthy use of one's life than were those of high socioeconomic groups.

TABLE 4

REASONS FOR ENTERING PRACTICAL NURSING

	Social Class	1	2	3	4	5	6	7	8	9	10	11	12
First Reason	I	50		16.6						33.3			
	II	22.2		22.2	11.1	11.1				22.2	11.1		
	III	20.8		29.2	8.33		4.16			25	8.3		
	IV	25		20	2.18		2.18	2.18	2.36	27.2	13.05		4.35
	V	13.3		6.6			6.6			44	36.7		
Second Reason	I	16.6		16.6		16.6	16.6			16.6			16.6
	II		11.1	44.4			11.1			22.2	11.1		
	III	20.8		29.2	8.3		4.1			25	8.3		4.1
	IV	19.6	1.09	33.7		1.09	6.5		4.36	20	10.9		2.2
	V	6.65	6.6	44			13.3		6.6	6.6	20		
Third Reason	I	16.6		16.6					50.		16.6		
	II	33.3		22.2			11.1	11.1		11.1	11.1		
	III	12.5		25		4.2	12.5			8.3	37.5		
	IV	17.4	6.52	14.2	5.5		19.6		4.4	15.2	16.3		1
	V	36.7		13.3	6.6	6.6	6.6			6.6	13.3		13.3

The twelve reasons listed below correspond to those numbers on the top line of Table 4.

1. General interest in that type of work
2. Preparation for marriage and family
3. Interest in and liking for people
4. Family influence
5. A woman's vocation
6. Job security
7. Religious beliefs
8. Suitability to my academic background
9. Wanted to care for sick people
10. Worthy use of life
11. One could be one's own boss
12. Other, please specify_____

The numbers within the table represent percentages of those in the different social classes choosing specific reasons.

j. The nurses were asked to classify their decision to become an LPN.
The results are as such

Social Class I	60.0%	- some planning, some circumstantial effect
	20.0%	- Largely the result of circumstances (mostly unexpected)
	20.0%	- Careful deliberation and planning
Social Class II	44.4%	- Some planning, some circumstantial effect
	44.4%	- Careful deliberation and planning
	11.2%	- Largely the result of circumstances (mostly unexpected)
Social Class III	52.0%	- Some planning, some circumstantial effect
	44.0%	- Careful deliberation and planning
	4.0%	- Largely the result of circumstances (mostly unexpected)
Class IV	40.2%	- Careful deliberation and planning
	33.7%	- Some planning, some circumstantial effect
	17.4%	- Largely the result of circumstances (mostly unexpected)
	8.7%	- Due almost entirely to circumstances (unexpected)
Class V	43.8%	- Careful deliberation and planning
	25.0%	- Some planning, some circumstantial effect
	18.7%	- Due almost entirely to circumstances (unexpected)
	12.5%	- Largely the result of circumstances (mostly unexpected)

The lower social classes entered practical nursing mainly through a process of careful deliberation and planning as opposed to the upper three classes who chose their career mainly thru a process of some planning and some circumstantial effect.

k. Which one person or experience most influenced the decision to become an LPN. Results are shown in Table 5.

TABLE 5

PERSON OR EXPERIENCE WHO MOST INFLUENCED DECISION TO BECOME A LPN

Social Class	Person or Experience										
	1	2	3	4	5	6	7	8	9	10	11
I				10.6		16.6		33.4	16.6		16.6
II		22.2		22.2				44.4			11.2
III	8.3	12.5	8.3			8.3		50	8.3		4.2
IV		6.4	2.1	12.7		9.6	3.2	49	4.3	2.1	10.6
V	6.2	6.2		31.2		6.2	12.5	18.8		6.2	12.5

The persons or experiences given below correspond to those numbers on the top line of Table 5.

1. Father
2. Mother
3. Sister or brother
4. Other relatives or friends
5. High School teachers
6. High School counselor
7. School nurse
8. Personal observation or experience
9. Career Day Activities, Future Nurses Club
10. T. V., movies, comics, radio, books, pamphlets
11. Other, please specify _____

The numbers within Table 5 represent percentages of those LPNs in certain classes choosing specific answers.

The dominant influential factor appears to be a personal observation or experience, except in social class V (lowest) where a greater number (31.2%) indicated that relatives or friends influenced them. There is a noticeable lack of influence coming from high school counselors and teachers. In class IV, where most LPNs are located, high school counselors were only the fourth most influential factor. Most of the items reported in the other category (no. 11) could be included in personal observation or experience, such as candy stripe work. There were a few instances of a minister's influence. Career Day Activities, Future Nurses Clubs, TV, movies, comics, radio, books and pamphlets were noticeably lacking in having a significant influence on the decision to become an LPN.

l. The LPNs were asked if they have children and, if so, how many are under school age. The results are

Social Class I 55.5% have children; of these families there are 1.3 children per family, all (100%) under school age

Class II 55.5% have children, 1 child per family under school age
All are under school age

Class III 72% have children
1.7 children per family
1.31 children under school age/family
72% of children are under school age

Class IV 51% have children
1.9 children per family
1.45 children under school age/family
68.7% of children are under school age

Class V 50% have children
2 children per family
1.6 children under school age/family
62.5% of children are under school age

In all classes, at least 50% of the LPNs have children. The percentage of children who are under school age appears to decrease slightly from class III to class V, whereas all children in Class I and II are under school age.

m. The nurses were asked who takes care of the children while they work and if care of the children is a problem. The results are:

Social Class I - All nurses with children do not work.
Class II - 60% of the nurses with children do not work, Of the 40% who do work, their husbands care for the children. Care of the children is not a problem.

Class III - 15.4% of the nurses with children do not work. Of the nurses who do work, only 20% said that care of the children is a problem. Children are cared for mainly by husbands and other members of the family. Day care centers are not used or available. Problems arise when husband and wife working schedules are similar and when the husband desires only his wife to care for the children. Unavailability of good baby sitters is also a problem.

Class IV - 21.2% of nurses with children do not work. Of the nurses who do work, 23% said that care of the children is a problem.
54% of children are cared for by paid baby sitters, with a similar number being taken care of by members of the family (the husband one-half of the time). Day care centers are not utilized. Conflicts in working schedules, unavailability of good baby sitters and a desire of the husband for his wife to care for the children are the major child caring problems.

Class V - 20% of nurses with children do not work. Care of the children is not a problem to those who work. 80% of the children are cared for by members of the family, while 20% utilize paid baby sitters. Day centers are either unused or unavailable.

One of the main child caring problems of LPNs who have below school age children is the unavailability of competent, trustworthy baby sitters. Hospitals in need of LPNs might consider the establishment of day care centers to be used by hospital employees.

n. Work History
(Mean time for LPNs "still working" was computed through September, 1971)

Social Class I
First LPN job - Mean duration time - 25.16 months
Standard Deviation - 11.23
Major reasons for leaving were insufficient salary, needed at home by family or parents, no opportunity for advancement, and marriage.
Second Job - Mean duration time - 8.75 months
Standard Deviation - 4.6
Reasons for leaving were similar to above except for the addition of pregnancy.
Third and Fourth jobs - only one nurse went into these new jobs and remained for only three month periods in each one. She left for reasons of pregnancy and her husband changing job location.

No LPNs in Class I are still working in their first nursing job. Of the 66% who entered a second job only 16% are still working. Only 16% of all nurses in Class I are still working as LPNs.

Social Class II
First LPN job - Mean duration time - 25.87 months
Standard Deviation - 13.87

The major reason for leaving was marriage, causing a move elsewhere. Other reasons included insufficient salary, inadequate working hours and husband's disapproval. One nurse left to enter RN training.

Second job - Mean duration time - 16.5 months
Standard Deviation - 11.88

Main reason for leaving was pregnancy (40% of time). Other reasons included employment too far from home, needed at home by parents or family and husband changed job location.

Third job - Only one LPN took a third job and has been there for 5 months.

12.5% of all the nurses have remained in their first nursing job. 63% went on to a second nursing job, but only 20% of them are still there (in job #2). 37% of those nurses in Class II are stilling working as LPNs.

Social Class III

First job - Mean duration time - 28.47 months
Standard deviation - 16.4

The major reasons (about 40%) for leaving were marriage and the fact that husbands changed job locations. Pregnancy was also a predominant reason. Insufficient salary, inadequate working hours, expected to perform duties for which an LPN is not prepared and no opportunity for advancement were also mentioned.

Second job - Mean duration time - 9.75 months
Standard Deviation - 6.69

Reasons for leaving were equally divided between place of employment too far from home, husband changed job location, not permitted to perform duties for which trained, no opportunity for advancement, and marriage.

Fourth job - Mean duration time - 12 months
Standard Deviation - 11.0

There were only two nurses in this category, one left due to a lack of opportunity for advancement and one for personal religious reasons.

30% of all the LPNs are still in their first nursing job. 56% went into second nursing jobs, but only 5.4% retained those jobs. 26% of all the LPNs went into a third job and 50% of them retained job #3. 8.7% of the Class III nurses entered a fourth job and then entered a fifth job and have remained there. One practical nurse never worked as a LPN. 58% of those nurses contained in Class III have remained employed as LPNs.

Social Class IV

First job - Mean duration time - 26.57 months
Standard Deviation - 18.21

The two largest reasons for moving were marriage and the fact that employment was too far from home. Inadequate working hours and no opportunity for advancement were often cited reasons, as well as husband changing job locations. Insufficient salary is mentioned as a reason 7% of the time, which is lower than exists in other social classes.

Second job - Mean duration time - 16.71 months
Standard Deviation - 11.20
Marriage and pregnancy account for about 35% of the reasons for leaving job #2. Inadequate working hours and no opportunity for advancement account for almost 25% of reasons. Insufficient salary and husband's disapproval of this job account for 15%.
Third job - Mean duration time - 13.55 months
Standard Deviation - 5.32
Reasons for leaving are highly similar to those found for leaving the second job.
Fourth job - Mean duration time - 9.12 months
Standard Deviation - 4.48
Reasons for leaving included insufficient salary, inadequate working hours and marriage
Fifth job - Mean duration time - 2.5 months
Standard Deviation .5
This category includes only two LPNs. One left job #5 because of racial reasons, the other because the patient died (private case).
Sixth job - Mean duration time - 3.5 months
Standard deviation - 2.5
The one nurse who left job #6 did so because of illness.

29% of all the LPNs are still in their first nursing job. 50% went into second nursing jobs and 39% retained those jobs. 20% of all the LPNs went into a third job and 26% of them retained Job #3. 8.3% entered a fourth job and 75% of these retained job #4. 2.1% went into a fifth and sixth job. 62% of those nurses in Class IV are still working as practical nurses.

Social Class V
First job - Mean duration time - 36.18 months
Standard Deviation - 15.55
Reasons for leaving were mostly pregnancy (30%), insufficient salary, husband changed job location, no opportunity for advancement, and marriage.
Second job - Mean duration time - 16.16 months
Standard Deviation - 13.58
Only one LPN left this job, because her husband changed job location.
Third job - only one LPN is here, has worked for 14 months.

50% of the LPNs are still in their first nursing job. 37% went into second practical nursing jobs and 83% retained those jobs. 6.2% of all the LPNs went into a third job and all retained job #3. 87% of those nurses in Class V are still working as practical nurses.

The total percentages of nurses working in September, 1971 in each social class was as such.

Class	I	- 16%
Class	II	- 37%
Class	III	- 58%
Class	IV	- 62%
Class	V	- 87%

Socioeconomically less-advantaged persons have a greater need for employment as illustrated by the above percentages. It would appear to follow that problems of the disadvantaged in practical nurse education should be delineated and more relevant and constructive training programs developed for them.

It is interesting to note that the mean duration time for the first LPN job in Classes I through IV is slightly over two years, whereas that for Class V is three years. LPNs of lower socioeconomic status would seem to represent a more stable source of employment (longer retention in the field time).

o. Reasons for not now working as a licensed practical nurse.

Social Class I - Approximately 38% of the responses indicated that these nurses were needed at home by their families. Other less frequently mentioned reasons included personal illness, pregnancy, husband's disapproval, work opportunities undersirable, and general dissatisfaction with LPN work.

Class II - 50% of the total responses indicated that the nurses were needed at home by parents or family, mostly to care for their young children, as was the case above. 25% of Class II responses indicated a pursuance or attainment of an RN career. Other less frequently mentioned reasons included employment in another health related occupation and being a student.

Class III - Approximately 45% of the responses indicated the nurses were needed at home by their families. 23% of responses were that of husband's disapproval. Other reasons included being a student, personal illness, and pursuance of an RN career.

Class IV - Approximately 33% of the responses indicated a need at home by the family. Marriage is a reason in and of itself for not working, however, most nurses have been married for sometime and must care for young families. Pregnancy and being a student represent approximately 12% each of the total responses. Other less often stated reasons include work opportunitites undersirable, general dissatisfaction with LPN work, and pursuance or attainment of an RN career. About 6% of the responses indicated employment in another health related occupation and another 6% indicated employment in another non-health related occupation. Also, approximately 6% of responses indicated a failure of the licensing examination.

Class V - There were only two nurses not now working. Reasons given included working in another health related occupation and a need at home by the family.

p. Employment plans for the next two years.

Social Class I

Nurses not currently employed in practical nursing: Responses were equally divided between remaining a homemaker, leave present employer to assume family responsibilities, re-enter the practical nursing field, and complete education for a non-nursing position.

Currently employed as LPNs: Only one nurse and she plans to stay in her present job.

Class II

Nurses not currently employed in practical nursing: 33% will remain homemakers, 33% have no definite plans, 16% plan to re-enter the practical nursing field and one nurse plans to finish school for an RN position.

Currently employed: The majority want to stay in their present jobs.

Class III

Those not currently employed: 37% plan to remain homemakers, a similar number plan to re-enter the practical nursing field. One nurse is entering the RN field and one has no definite plans.

Currently employed: 59% will remain in their present job. 18% will leave their employer to assume family responsibilities. 12% have no definite plans, the remainder wanted to change LPN jobs.

Class IV

Those not currently employed: 39% have no definite plans, 25% want to re-enter the practical nursing field, 18% will remain as homemakers, 10% are entering the RN field, 3.6% will take a similar job with another employer and 3.6% will complete their education for a non-nursing position.

Currently employed: 72% plan to stay in their present job, 9.4% plan to enter the RN field, 6.2% have no definite plans, 4.7% want to leave their employer to assume family responsibilities, 3.1% will leave their present employer without definite plans for the future.

Class V

Those not currently employed: Equal numbers plan to remain homemakers or have no definite plans.

Currently employed: 57% plan to stay in their present jobs, 21% have no definite plans, 14% will leave their employer for another type of position in practical nursing, and 8% plan to assume family responsibilities.

q. Job Satisfaction (From Scale described on page 1)

The mean of total job satisfaction scores and standard deviations of the five social classes are as follows:

Social Class I - Mean satisfaction score = 47.16
Standard deviation = 4.17

Social Class II - Mean satisfaction score = 54.75
Standard deviation - 4.57

Class III - Mean satisfaction score = 53.08
Standard deviation = 6.14

Class IV - Mean satisfaction score = 52.93
Standard deviation = 6.92

Class V - Mean satisfaction score = 52.50
Standard deviation = 4.67

Job satisfaction scores appear to be fairly equally distributed, although LPNs in Class I (highest socioeconomic position) were slightly less satisfied with their jobs.

r. The nurses were asked to rank the three most important satisfactions that practical nursing provided them. The results are shown in Table 6.

The main satisfaction of LPNs in Classes I, IV and V was that of doing for others-feeling needed. Class III nurses' greatest satisfaction was that of being engaged in type of nursing preferred, although almost 32% chose doing for others-feeling needed. The main satisfaction for Class II nurses was that of their relationships or experience with staff and patients.

The second greatest satisfaction for Class II was that of doing for others-feeling needed. The second greatest satisfaction for Classes III through V was with the relationships or experience obtained with the staff and patients.

The second greatest satisfaction for Class II was that of doing for others - feeling needed. The second greatest satisfaction for Classes III through V was with the relationships or experience obtained with the staff and patients.

Almost 40% of Class V nurses indicated "being respected" as their third greatest satisfaction. 25% of Class II indicated similarly.

Within Table 6 there is a noticeable lack of satisfaction with the promotional possibilities afforded licensed practical nurses. The practical nursing profession would conceivably be made considerably more attractive if there were significant job and salary promotional possibilities.

s. The nurses were asked what is/was their greatest problem as an LPN. The results are indicated in Table 7.

With the exception of those in Social Class II who indicated poor working conditions as their greatest problem, the majority of nurses in the various classes said they had no problems. A considerable number of nurses, however, cited a lack of recognition of the LPN's contributions, a lack of knowledge of the LPN's capabilities and limitations, and poor working conditions as significant problems.

TABLE 6

THREE GREATEST SATISFACTIONS
PRACTICAL NURSING PROVIDES

	Social Class	Satisfactions 1	2	3	4	5	6	7	8	9	10
Main Satis-faction	I			16.6		33.3		50			
	II	12.5	37.5	2.5		33.3		25			
	III	4.5	4.5	36.3	4.5	4.5		31.8		9	4.5
	IV	4.4	9.9	16.4	4.4	6.6	1.1	53.2		1.1	3.3
	V	6.2		12.5				75	6.2		
Second greatest Satis-faction	I		16.6	16.6		16.6		16.6		16.6	16.6
	II		25			25		37.5		12.5	
	III		54.5		13.5	9		22.7			
	IV	5.7	24.1	20.6	8	9.1		18		11	2.3
	V		37.5	25		12.5	6.2	6.2		12.5	
Third great-est Satis-faction	I		16.6	16.6	16.6		16.6			16.6	16.6
	II		37.5		12.5	12.5		12.5		25	
	III	13.5	22.7	13.5	18.2	9		9	4.5	9	
	IV	5.7	29	26	11	2.3	4.6	6.9	1.2	9.2	2.3
	V	6.6	33.3	6.6		6.6	33.3			39.9	

The ten satisfactions listed below correspond to those numbers on the top line of Table 6.

1. Policies - excellent salary, security, retirement
2. Relationships - experience with staff, and patients
3. Engaged in type of nursing preferred
4. Location and experience provided
5. Education and experience provided
6. Assigned according to preparation
7. Doing for others - feeling needed
8. Promotional possibilities
9. Being respected
10. Other, please specify_____

The numbers within the table represent percentages of those in the various social classes choosing specific satisfactions.

TABLE 7

GREATEST PROBLEMS OF LPNs

Social Class	Problems							
	1	2	3	4	5	6	7	8
I	20			20		40	20	
II		12.3		43			32.4	12
III	13.5	27		9		9	40.9	
IV	26	16	2.3	14.8	1.2	3.5	34	1.2
V	18.8	18.8		12.5	6.2		43.7	

The eight items listed below correspond to those numbers on the top line of Table 7.

1. Lack of recognition of LPN's contribution
2. Lack of knowledge of LPN's capabilities and limitations
3. Poor relationships with co-workers
4. Poor working conditions (hours, wages, work load, lack of advancement)
5. Inadequate preparation
6. Low status
7. No problem
8. Other, please specify_____

The numbers within the table represent percentages of those in the various social classes citing specific problems.

Past Activities

C Results to the Third Objective

1. The third objective of this study as stated in the Introduction above was determined from a sample of thirteen schools chosen randomly. All Pennsylvnnia Bureau of Vocational-Technical Education related practical nursing schools were clustered and stratified on the basis of surrounding population size metropolitan statistical area), and age and size of the schools. Random selections from these clusters resulted in the thirteen school sample. A rather great size and age variance between schools, as exists in the state as a whole, was introduced into the sample.

2. The total sample consisted of 405 students. Of this number, only 9.8 percent did not complete the minimum requirements needed to sit for the state board examination.

   All students used in the sample graduated in the spring of 1972. Students and withdrawals from the various programs were administered questionnaires by Mr. Kobland and coordinators to ascertain their socioeconomic status. Hollingshead's Index of Social Position (1958), as described in previous reports, was utilized for this purpose.

   Upon graduation, Coordinators were asked to indicate any additional student withdrawals from the programs. Eventually each student was classified according to social class.

   The breakdown (percentage) of students in each social class for the various samples is as follows:

Total Student Sample

Social Class	Percentage
I	.43
II	1.66
III	12.50
IV	54.50
V	31.20

Student Withdrawal Sample

Social Class	Percentage
I	0
II	2.5
III	17.5
IV	50
V	30

Student Completion Sample

Social Class	Percentage
I	1.20
II	2.31
III	12.73
IV	55.33
V	27.43

Social Class I = highest socioeconomic position

Social Class V = lowest socioeconomic position

The following chart indicates the student completion potential in each social class. It shows the percentage of total students in each social class completing the programs.

Social Class	Percentage of students who qualified for state board examination
I	100.0
II	90.0
III	87.0
IV	91.0
V	89.4

The mean completion potential for the upper three social classes is approximately 92% while the mean for the lower two classes is approximately 90%. There does not appear to be any significant difference between disadvantaged and nondisadvantaged students in their ability to complete the minimum requirements for eligibility to sit for the state board examination.

b. Results to the Second Objective

1. The sample for this study consisted of all (101) instructors from fourteen separate practical nursing schools. Average state board scores of LPNs in all the schools in the state were calculated from over a five year period. The seven schools exhibiting the highest state board averages and the seven schools exhibiting the lowest state board averages were included in the sample.

2. Three major teacher variables were compared to the average graduate practical nurse state board scores in each sample school. These variables included: Coordinator ratings of specific teacher characteristics, post high school education, and time in professional tenure.

a. Instructor Ratings

1. The Purdue Rating Scale for Instruction (Remmers, 1960) was adapted with permission for use in this study. A ten item teacher characteristic graphic rating scale was therefore used by Coordinators of the various sample schools to rate their instructors. The characteristics rated are shown in Table 8., along with Pearson correlations between teacher characteristics and state board averages. Each teacher characteristic was followed by a graphic

TABLE 8

CORRELATIONS BETWEEN STATE BOARD ACHIEVEMENT AVERAGES IN SPECIFIC SCHOOLS AND INDIVIDUAL INSTRUCTOR RATINGS

Item	Teacher Characteristic	Product Moment Coefficient of Correlation
1.	Interest in Subject	-.223
2.	Sympathetic Attitude toward Students	-.069
3.	Fairness in Grading	-.172
4.	Liberal and Progressive Attitude	-.136
5.	Presentation of Subject Matter	-.223
6.	Sense of Proportion and Humor	-.148
7.	Self-reliance and Confidence	-.049
8.	Personal Peculiarities	-.006
9.	Personal Appearance	-.272
10.	Stimulating Intellectual Curiosity	-.148
	Total Sums of the Scale	-.186

Note: The requirement for significance is an r of .195 required for alpha = .05.

rating scale scored from 1 to 10, where 1 represents the lowest and 10 the highest possible score. The highest possible score on the entire ten item scale was 100.

2. It is interesting to note that all correlations indicated in Table 1 are negative, suggesting that positive extremeness in all categories of teacher characteristics studied results (in varying degrees) in lower student achievement on the NLN Examination (State Boards).

3. Three of the correlation coefficients are significant at the .05 level of significance. These correlations include the following teacher characteristics: Interest in Subject, Presentation of Subject Matter, and Personal Appearance.

   Results seem to indicate that practical nursing students taught by instructors who appear too full of their subject and are overly definite and forceful, achieve lower state board scores then would otherwise be the case. The correlation coefficient between teacher interest in subject and student achievement on state boards is -.223 and between teachers' Presentation of Subject manner and student achievement on state boards is -.223. Because both correlations are concerned with subject matter it is interesting to note that the coefficients of correlation are equal. These results are unexpected but understandable. For the great majority of practical nursing students their practical nurse training is the first post high school education they have received. They have very little if any pre-nursing school preparation concerning expectations and knowledge of the practical nursing program. It's no wonder then that an instructor who 'comes on too strong' in relation to interest in and presentation of subject matter can be regarded as a threat, that students who have questions seemingly far below a teacher's level of presentation or knowledge will be reluctant to ask these questions, and that less meaningful knowledge will be absorbed. In other words, a teacher who appears more 'approachable', who remembers that she is teaching practical nursing, who is not so interested in letting an expansive knowledge be known, will create an air of mutual trust and respect between student and teacher. These views do relate significantly to student achievement on the state board examination.

   The correlation coefficient between personal appearance of teachers and students' state board achievement is -.272, which is significant at alpha = .05.

This negative correlation is difficult to analyze, especially because of its relative largeness. Teachers who were always well groomed with neat and clean clothes have a significant number of students of lower state board achievement. It may be that a preoccupation with good grooming serves as a substitute for good teaching methods. The reason or reasons for this significant correlation are, admittedly, unknown, but the fact remains that students performing well on the state board examination have had instructors who are generally best described as being between well groomed and somewhat untidy.

4. There was a negative but not significant correlation of -.172 between Fairness in Grading and student achievement on State Boards. In other words, often times teachers who were fair and impartial in their grading procedures produced lower state board achievers. This could be the result of a reaction formation in students, such that teachers showing a degree of partiality could cause other students to react in a form of 'defiant compensation', to increase their learning capability and knowledge. This hypothesis would not be offered if not for the fact that the r = -.172, which is not significant but large enough to suggest an affective trend.

An interesting coefficient of correlation exists between teachers' Liberal and Progressive Attitude and students' state board achievement (r = -.136). This Pearson coefficient of correlation is not significant but again is large enough to suggest that one factor can indeed affect the other. The fact of interest here is that the correlation is a negative one, indicating that a degree of teacher authoritarianism is performed over permissiveness for preparing above average state board achiever students. In accordance with the first two correlations discussed, it is seen that teaching aimed at preparing higher state board achievers might best have an authoritarian nature, with an understanding of student aptitude and knowledge levels, such that presentations do not represent imposing situations.

The correlation coefficient between sense of proportion and humor and state board achievement was -.148, which is consistant with the degree of authoritarianism expressed above. An efficient LPN would surely respect and accept a level of seriousness concerning her profession.

The negative coefficient of correlation (-.148) between item 10 (Stimulating Intellectual Curiosity) and state board achievement is understandable in terms of presentation of subject matter. A teacher attempting to create a desire for investigation by students through intellectual example way, as stated above, inadvertently become a threatening figure to those overwhelmed by a seemingly inspiring example.

5. The Pearson coefficient of correlation between the total sums of the scales and student achievement on state boards is -.186. It approaches the significant level of .195 and its negative nature substantiates the item correlations discussed above.

6. The Rating Scale for Instruction was not tested for reliability or validity mainly because of its high degree of form similarity to the original Purdue rating scale. In its original form The Purdue Rating Scale on Instruction has a split-half reliability coefficient of .865, which compares quite favorably with the reliabilities of the better psychological instruments currently available (Remmers, 1960). The author also states that to the degree that raters are self-consistent in their judgments, the scale is valid. In this sense validity is synonymous with reliability.

b. Professional Tenure

1. Student achievement in the state board examination was correlated with both the overall time the instructors have been engaged in professional nursing (time spent working as a nurse) and the time actually spent in the instruction of practical nursing students. All instructors (101) were included in this section, except for the time in instruction sample where instructors from one school were eliminated due to a lack of certain information.

2. The means and standard deviations of instructors' total time spent in nursing and time given to instruction of practical nurse students in each school was calculated and is shown in Table 9. The first seven schools listed are those with the highest five year practical nurse state board averages and the last seven schools (8 thru 14) have the lowest state board averages of all schools. State board scores of schools ranged from a high of 556.6 to a low of 428.5.

3. State board score averages of each school were correlated with the means indicated in Table 2. The results indicate an r of .405 between the total

TABLE 9

MEAN TIME AND STANDARD DEVIATIONS (IN YEARS)
INSTRUCTORS HAVE SPENT IN NURSING AND IN
INSTRUCTION OF PRACTICAL NURSE STUDENTS

School	Mean and SD of total time (yrs) in nursing	Mean and SD of time (yrs) spent in instruction
1	M = 25.33 SD = 9.03	M = 6.16 SD = 3.93
2	M = 19.33 SD = 2.35	M =11 SD = 0
3	M = 12.33 SD = 8.26	M = 3.25 SD = 2.77
4	M = 25 SD = 8.89	
5	M = 15.33 SD = 8.53	M = 6.38 SD = 5.28
6	M = 27.27 SD = 5.98	M = 7.44 SD = 5.07
7	M = 19.2 SD = 10.16	M = 5.4 SD = 5.42
8	M = 10.2 SD = 7.62	M = 2.83 SD = 2.36
9	M = 13.5 SD = 10.27	M = 4.83 SD = 1.57
10	M = 18.5 SD = 8.55	M = 3.75 SD = 2.16
11	M = 25.5 SD = 12.61	M = 5.69 SD = 3.73
12	M = 23.4 SD = 10.34	M = 6 SD = 6.25
13	M = 16.25 SD = 6.25	M = 3.5 SD = 2.06
14	M = 14.42 SD = 11.33	M = 5.41 SD = 5.67

Note: School #1 graduated students with the highest state board exam scores, school #14 the lowest. (Scores comprised from five year averages.)

time instructors have been engaged in professional nursing (including teaching time) and state board averages and an r of .460 between the time instructors have been engaged in teaching practical nurse students and student state board averages. Neither correlation coefficient is significant. The requirement for the first is .514 and for the second is .532 at alpha = .05. However, both correlations are positive and both are substantial, indicating a probable and positive relationship between the students ability to perform on the state board examination and the length of time their instructors have been in both nursing and instruction. The relationship is strongest between length of time in instruction and state board achievement. Professional nurses having more tenure in nursing as a whole and, especially, in the instruction of practical nurse students, would appear generally more able to inspire students to greater achievement on the state board examination.

c. Educational Qualifications

1. The educational qualifications of instructors were divided into the five categories listed on top of Table 3. The means and standard deviations within Table 3 represent percentages of instructors in groups of schools in specific categories. Schools 1 thru 7 in Table 3 represent those which exhibit the highest state board averages, while schools 8 thru 14 are those showing the lowest averages. School #14 represents the school having the lowest five year state board average, school #1 the highest.

2. Although the percentages in Table 10 were not tested for statistical significance, it is felt that several observations should be made. Approximately 8 per cent more instructors in the lower group of schools than in the higher group did not yet attain the bachelor's degree. This is illustrated in the category containing those who have credit toward the bachelor degree.

   9.4% more bachelor degrees exist in the higher group of schools than in the lower group. There were fewer upper group instructors in the post-graduate category than were in the lower group, but 3.7% more upper school instructors actually attained the Master s degree. 4.6% of instructors in the upper group have attained credit beyond the Master's level. This compares to 0.0% of instructors in the same category in the lower group of schools.

3. The group means do seem to suggest that the two ends of the educational spectrum portrayed in Table 3 are the most significant. There are fewer instructors in the upper group of schools with only partial credit toward the bachelor's degree than does exist in the lower group.

TABLE 10

PERCENTAGE OF INSTRUCTOES IN
SPECIFIC SCHOOLS WHO HAVE ATTAINED
VARIOUS EDUCATIONAL LEVELS

School #	Educational Categories				
	Credit toward Bachelor degree	Bachelor degree	Post-graduate credit	Master degree	Beyond Master's
1	16.6	50	16.6	16.6	0
2	0	33.3	66.6	0	0
3	60	20	0	20	0
4	33.3	44.4	0	22.2	0
5	17	33	0	33	17
6	0	50	0	44.4	5.6
7	40	20	30	0	10
	M = 23.84 SD = 20.33	M =35.81 SD =11.89	M = 16.17 SD = 23.23	M = 19.45 SD = 15.01	M = 4.65 SD = 6.19
8	46.6	26.6	6.6	20	0
9	50	0	50	0	0
10	40	40	0	20	0
11	33.3	16.7	33.3	16.7	0
12	0	25	75	0	0
13	33.3	16.6	16.6	33.3	0
14	20	60	0	20	0
	M = 31.87 SD = 15.91	M =26.4 SD =17.74	M = 25.9 SD = 26.3	M = 15.7 SD = 11.07	M = 0 SD = 0

Note: The numbers within Table 3 represent percentages of instructors in each school attaining specific educational levels.

M = mean of group
SD = standard deviation

Schools 1 thru 7 represent those having the highest state board averages.
Schools 8 thru 14 represent those having the lowest state board averages.

There is concurrently a greater percentage of instructors in the upper group of schools who have attained either the master's degree or credit beyond the master's degree than does exist in the lower group. The combined percentage of those having either a bachelor's degree or post-graduate credit is, in both groups of schools, about the same (52%).

E. LPN Comments

1. The sampling of licensed practical nurses who graduated in the fall of 1967 (see page i) were asked to add any comments they had about nursing in general on the last two pages of the questionnaire.

2. All comments received were reviewed by Mr. Kobland and the most significant in regard to content are listed below. The comments are listed in order of the state board scores achieved by the nurses, from lowest to highest. There are twenty-six chosen comments. The state board score corresponding to the first is 318 and the score corresponding to the last is 610. The mean score is 480.26 and the standard deviation is 74.05.

3. Selected comments are as follows:

(1) "My understanding of the LPN is that we are the bedside nurse. To administer complete nursing care to one's patients. If I desire to be a charge nurse, or operate the entire floor, then I would have trained as an R.N. My comment is the practical nurse is being led from the bed-side to the desk. I wish to be able to administer complete bed-side manner, care, and understanding to my patients along with hope and empathy."

(2) "There are times when I think the supervisors except more from some LPNs than they do some RNs. Perhaps this depends on the persons involved."

(3) "Upon graduation from my training I was most excited about caring for others. I did notice however that as I continued to do practical nursing I became discouraged. The one thing that bothered me the most was the public's attitude toward practical nurses. I was really upset with many people who would say, for example "Oh, you're just a practical nurse" or "you girls have most of the dirty work to do."

Sometimes I felt that if I would have been on welfare I would make more money, or at least as much.

I do have many fond memories from some very dear patients, and from this I did receive self-satisfaction."

(4) "I enjoy nursing very much, but there is one thing I don't like. That one thing is the pay received in some places. When we have one year of training we paid for, I think the salary should be more. Some secretaries receive more pay than the PN's do and only have a high school education."

(5) "My one complaint is that in my present area LPNs do not give medications in the hospitals. Why should we be trained and not be allowed to use our knowledge on the job? I do hope someday the hospitals recognize the contributions LPN's can make."

(6) "I feel that if a child care center was established in the hospitals for children under school age, there would be quite a few nurses who would return to the job and be more dependable because they would know that their children were receiving adequate care. Financially, it's of no benefit to me to drive so far to work and pay a babysitter."

(7) "My reason to become a LPN was because of rejection for R.N. training. But I'm proud to say I'm a LPN today and only wish other people in the nursing profession were just as proud to have LPNs. To some we are just glorified Nurse Aides. But I think these people don't realize the extent of our schooling and just what we do learn. I think most of the LPNs I have worked with can run rings around most of the RNs I have worked with. Maybe someday we will be treated as a nurse."

(8) "The only real problem I found in my training was not enough on medications. At my present job I am completely in charge on 11-7 and I was not prepared to pass medications to my fullest capacity because we did not have enough training in this field."

(9) "I have argued, fought and cried for the LPN cause. In this area I really feel we are looked down upon. We are the glorified scrub women on some departments and the Nurses on others. I feel there is a great necessity that there be an education of professional personnel on the duties and rights of the LPN. I also feel that LPN's should be considered professional people and treated as such."

(10) "I do feel at times the LPN is expected to perform or take over in some areas where we are not fully trained."

(11) "Make practical nurse training compatible, so that credits may be transferred to R.N. training."

(12) "I wish that there would be frequent refresher courses offered. I work generally with elderly people and I know I have forgotten many things in other types of nursing."

(13) "Working abilities depend greatly on job satisfaction and supervisors' knowledge. I enjoyed my last job only until we had a change in supervision. Never have I worked under such strain. LPN training is terrific, I'm surprised that the course hasn't been increased an extra year."

(14) "I have generally enjoyed my experience in nursing I think one of the biggest problems is that a lot of RN's look down on the LPN and do not want to recognize her capabilities and do not care what she contributes as long as she does her basic work. I have even heard LPN's being called "glorified aides" and have seen aides put in charge of LPNs. I think LPNs should try to make people realize how her knowledge and training can be helpful not only to those higher than her but to her paitents also.

Another need is to be educated more in pharmacology and the giving of medicines and especially injections. These are very much needed when working in a Nursing Home."

(15) "I consider the Practical Nursing program a great asset. It should be lengthened, however, and subjects gone into detail more. Also I think there should be more clinical work."

(16) "I'll never regret the year I spent studying to be an LPN. I do feel that the length of the course should be extended and that credits toward an Associate Degree be granted."

(17) "I enjoyed my work as a LPN very much, and I always felt welcome and respected in my hospital, although some of my fellow classmates there didn't feel as I did.

I feel the PN course wasn't long enough. However, with two year Associate degree programs, it would be hard to lengthen the PN course when you could go and become a professional nurse in two years.

I feel that some expected too much from the LPN, especially in pharmacology which was only touched upon in school. This was a big responsibility we weren't getting paid any more for."

(18) "Is there any way that a LPN can advance and assist with teaching practical nursing students without too much further education?"

(19) "When I first started at the Hospital I was the only LPN. There was a pilot study in which a job description was set up. After nearly four years I feel the LPN is an accepted member of the staff. I have a desire to see the LPN take her rightful place on nursing staffs of many hospitals who still refuse to recognize her. I hope it is the purpose of this study to show how useful the LPN can be in bedside nursing."

(20) "I liked my school of practical nursing and felt it was good training. However, I feel that one year is not enough or refresher courses should be offered, especially for nurses working private duty.

I like practical nursing. The work hours were inconvenient in the hospital but being in nursing you must expect to work weekends and holidays. I do feel we should get paid more for our knowledge and know-how."

(21) "I am very suprised about the negative attitude from Registered Nurses and Doctors toward the practical nurse. Due mostly to the lack of knowledge of what we have learned (how much anatomy, etc!) However, in the past two years I have noticed an acceptance with a few doctors.

Many people ask what I do and I tell them proudly "I am a practical nurse." Their answer is usually "Oh, well then you're not a nurse." All the training we had, isn't there some way of educating the public?"

(22) "I feel that my training was quite complete for a LPN program but would eventually like to get my RN as things continue to come up in which I don't have a thorough knowledge. Also, the $1.00 difference in hourly pay would be worth the time spent in study."

(23) "The only disadvantage of Practical Nursing is the fact that you can not go ahead or better yourself. You are a LPN and that is it.

I am presently finishing my last year in a two year Associate Degree R.N. program. It was for the above reason that I went back to school. All of my instructors have commented on my nursing skills. They state that I really must have had good instructors in Practical Nursing school because my skills are very good. I also feel that I had excellent training at my Practical Nursing program.

P.S. I would eventually like to teach in a Practical Nursing Program."

(24) "Many times she (the LPN) performs under aides who have no educational background and little experience. Our state supports the training programs. Why not use the personnel to the best advantage?"

(25) 'Would like to see girls and boys interested in this field be able to start some courses or study nursing when they enter Senior High School."

(26) "I believe a nurse should be judged by her abilities as a nurse, not by her politics or friends or acquaintances. Let's put the patient and his welfare first. Then comes glamor, personal relationships with staff, etc."

4. As can be seen, there is a variance in ideas and opinions which is not related significantly to achievement on state boards. The nurses graduated in 1967 and some, therefore, had been working for four years. The working environment of each nurse was probably the main factor molding their comments. It was not expected that state board achievement would be significantly reflected in comments concerning job satisfaction or dissatisfaction or levels of job performance as these correlations were proven non-significant in the first objective results (see pages 1-5).

5. The comments express a general LPN satisfaction with the practical nurse training received and an overall LPN dissatisfaction with distribution of duties among all types of nurses and/or amount of work expected on the job. It would appear that more definitive and enforcing job descriptions should be established in working areas to delineate LPN responsibilities as was stated in comment #19.

There was dissatisfaction expressed with the lack of advancement possibilities afforded LPNs, as well as with the pay received.

Some LPNs feel the length of the training programs should be extended but it was also stated that it would be difficult to extend the course when an associate degree in nursing can be obtained in two years.

Apparently a substantial number of LPNs feel that more training should be given in pharmacology and the giving of medications. Many LPNs are required to administer medications on the job and do not often feel properly qualified to do so.

6. The overall impression received from the many comments given is one of substantial LPN satisfaction with the LPN training programs. The main problem faced by graduate licensed practical nurses so far as education is concerned

is the relative lack of knowledge by professional health personnel of the extent of LPN training in state related programs. There appears to be a rather wide spread lack of respect for the LPNs' gained abilities and proper limitations. The myth of the LPN being a'glorified nurse's aide' must be broken, mainly through the voluntary establishment of guidelines by hospitals, nursing homes, etc. delineating the practical nurses' responsibilites. An attempt to move toward state-wide standardization of these guidelines would seem advantageous. It would seem that instructors and coordinators of state related training programs should have a rather large input in the construction of such guidelines. Licensed practical nursing can be made considerably more attractive when the ignorance of its true role by many supervisors of LPNs, and indeed patients, is erased.

II References

Flanagan, J. C. The Critical Incident Technique. Psychological Bulletin, 1954, 51, pp. 327-358.

Hollingshead, A. B. and Redlich, F. C. Social Class and Mental Illness, John Wiley and Sons, New York, 1958, pp. 398-407.

Remmers, H. H. and Elliott, D. Manual, the Purdue Rating Scale for Instruction. (Rev. ed.) West Lafayette, Ind.: University Book Store, 1960.

Treece, Eleanor M. Vocational Choice and Satisfactions of Licensed Practical Nurses. The League Exchange, National League for Nursing, 1969, No. 87, p. 23.

Wrigley, Margaret H. Practical Nurse Evaluation. American Vocational Journal, 1970, 45 (6), pp 60-62.

Technical Report on Standardization of the General Aptitude Test Battery for Nurses, General. Medical Ser. 0-33.10, B-548 (Supersedes B-214) (Washington, D.C., June, 1963).